

**Notice of Allowability**

Application No.

10/049,964

Examiner

Francisco C Prats

Applicant(s)

YASUTAKE ET AL.

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing 7-18-2002.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 18 July 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Francisco C Prats  
Primary Examiner  
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### REASONS FOR ALLOWANCE

The preliminary amendment filed July 18, 2002, has been received and entered.

The following is an examiner's statement of reasons for allowance:

No prior art discloses or suggests the compound recited in claim 7.

With respect to the remaining claims, all directed to methods, the closest prior art is either Bardales (J. Biol. Chem 264(33):19893-19897 (1989)) or JP 5-64594. In general, as pointed out in the Reasoned statement in the International Preliminary Examination Report, no prior art suggests that the disaccharide lactose would be a donor saccharide substrate in a transglycosylation reaction. Bardales does describe addition of glycerol to the disaccharide Gal $\beta$ -1,3-GalNAc. However, there is no suggestion that the enzyme of Bardales would function similarly with respect to the Gal $\beta$ -1,4-Glc or Gal $\beta$ -1,4-GlcNAc structures of lactose and N-acetyllactosamine respectively, required in the claims under examination, particularly in view of the known substrate specificity of saccharide-hydrolyzing enzymes, and the different sugars and bond configurations required in the claims vis-à-vis Bardales.

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Similarly, with respect to JP '594, the hydrolytic enzyme employed therein cleaves a parent sugar having a polymannosyl moiety attached to a GlcNAc dimer, a structure very different from the  $\text{Gal}\beta\text{-1,4-Glc}$  or  $\text{Gal}\beta\text{-1,4-GlcNAc}$  structures of lactose and N-acetyllactosamine, respectively, recited in the claims of the instant application. Moreover, there is no disclosure regarding the configuration or carbon atoms involved in the bond linking the reducing terminus GlcNAc to the non-reducing "saccharide" moiety "X" in the generic formula. Thus, at best, the closest prior art only suggests that the claimed process is "obvious to try," which is not a standard properly applied under 35 U.S.C. § 103(a). Allowance is clearly required.

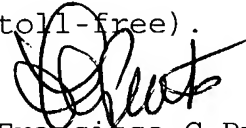
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco C Prats whose telephone number is 571-272-0921. The examiner can normally be reached on Monday through Friday, with alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Francisco C Prats  
Primary Examiner  
Art Unit 1651

FCP